

## An attempt to improve accuracy of a processing method of a real-time seismic intensity.

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We have improved accuracy of the processing method of the real-time seismic intensity proposed by Kunugi et. al (2008). Kunugi et. al (2008) proposed a real-time seismic intensity, whose concept is similarly to the JMA seismic intensity (Ijma) defined by Japan Meteorological Agency. With the increasing requirements of earthquake early warning (EEW) system, it is much more obviously that Ijma has a real-time delay since the Ijma needs a filtering operation in frequency domain. In order to improve a real-time calculation suitable for the EEW system, the real-time seismic intensity, is defined by using an approximating filter in time domain instead of the original filter in frequency domain. For a small computing system like a strong-motion seismograph, it is easy to process the real-time intensity because the filter has only five stages (it consists of four first-order filters and a second-order filter). In this presentation, we present an attempt to improve accuracy of a processing method of a real-time seismic intensity employing a new filter having more stages.

Keywords: real-time seismic intensity, seismic intensity, instrumental seismic intensity, strong motion, strong-motion seismograph, earthquake early warning